PROJECT SUMMARY

PROPOSED SAWMILL OPERATION

2023

81. De Willem South. West Coast Demerara

Name of Developer: Ragnath Persaud

Developers' Address: 81, De Willem South, West Coast Demerara.

Contact details: 277-0276/669-4114

Project Type: Sawmill

Projected Capital Investment: Guy$28M

Annual Turnover: Projected Guy$6M

Project Duration: Approx. 15 years based on market demands and trends

Project Location: Tract 'BK', Sublot Letter 'A', Block 1 N 1/3, Plantation Bartenstein, East Bank Essequibo

Project Location and Description

The proposed sawmill will be located at Tract 'BK', Sublot Letter 'A', Block 1 N 1/3, Plantation Bartenstein, East Bank Essequibo and can be accessed from the access road leading to Hubu which is located on the East Bank of Essequibo. The surroundings of the operation appeared to be mixed with a gas station and a resident located north and the Essequibo River is situated west, while the access road (Hubu road) and residents are located east of the proposed project location (refer to Google Map in Figure 1). The Essequibo River is immediately nearby the proposed location and will be used for log transport. The River will be unaffected by the operation

Figure 1: Showing project location and surrounding land uses

Pre-construction phase

The proposed area will be cleared of vegetation with a brush cutter and the vegetation will be kept in a designated area to be decomposed and one person will be hired to complete this task. Construction materials such as lumber of various dimensions, sand, stones, steel rods, cement, etc. will be mobilized to the site to be used in the construction phase.

Construction phase

The infrastructures such as the office, dwelling house, washroom with toilet and septic tank and mill shed and mechanic workshop have to be constructed with the dimensions stipulated on the site plan (herein attached with the Application Form) and the equipment with the necessary electrical support has to be installed. The expected duration of this phase is about one month or may be prolonged due to bad weather. For the mill shed, the posts will be placed on concrete bases and a two storey wooden building will be constructed for the office (bottom flat) and the dwelling place (upper flat). The base of the mechanic workshop will be concreted so as to avoid contamination of the ground water.

Solid waste such as empty cement bags, pieces of wood, food boxes, beverage bottles and tins, etc. will be expected to be generated during the construction phase and the waste will be collected in a garbage receptacle (plastic drum) and emptied by Puran Brothers Waste Disposal Service and the frequency of empting the receptacle would depend on how fast the it is filled. Noise emission is expected to be minimal since most of the tools that would be utilized will be hand held electrical tools and works will be carried out during the day from 8:00 hrs to 17:00 hrs, Monday to Saturday. Vibration is not expected to be emitted since no heavy duty machinery such as a loader or skidder will be used. Approximately 10 persons will be hired for this phase. They will be responsible to provide their own PPE. A First Aid Kit will be onsite incase of minor injury but if there is a major injury then that person (s) will be transported to the West Demerara Hospital for treatment.

Operational phase

It is expected that approximately 500 m^3 of logs per month will be processed at the sawmill. The sawmill will be equipped with 2 mills (1 electrical and 1 engine operated), 2 planers, 1 edger, 2 generators with 100 kVA capacity each, 1 or 2 chainsaws, 1 loader and 1 skidder. Dressed and rough lumber will be produced and these will be stored on the lumber shelves/racks as well as on dunnage. Timber species such as Tatabu, Torinario, Farm Board or Baroamalli, Antwood, Karatie, Silverballi, Dukalie, Purpleheart, Greenheart, and other lumber species will be processed onsite. The logs will be sourced from logging concessionaires and will be transported to the site on barge/pontoon by the Essequibo River. The logs will be offloaded from the barge/pontoon by the skidder and discharged in the log pond. The logs are temporarily stored in the log pond, which has the capacity to hold approximately 200-220 m^3 of logs. From the log pond, the log loader will transport the logs to the mills for processing to remove the bark and saw it into the boards. From the mill, the boards are further processed by the planers and edger. Both dressed and rough lumber will be produced.

Utilities such as water and electricity are provided by Guyana Water Incorporated (GWI) and the Guyana Power and Light Incorporated (GPL) and telephone service is provided by the Guyana Telephone and Telegraph Company (GTT). Two generators will be on stand-by. No fuel will be stored onsite because a gas station is located nearby. Solar lights will be utilized too.

Seven (7) people will be employed to work daily at the sawmill. Working hours will be 8:00 hr to 17:00 hr, Monday to Saturday. All loading and offloading of logs and lumber will occur during the working hours. Personal Protective Equipment (PPE) provided to the workers is gloves, visibility vests, helmets, goggles and steel tip boots. A First Aid Kit will be placed in the office to treat any minor cut(s) or bruise(s) and a vehicle will be standby to transport any injured person to the West Demerara Hospital.

Fire extinguishers and sand buckets will be placed at strategic points of the operation and a "No Smoking" sign will be placed in a contiguous area.

Environmental Effects

The following environmental effects may be generated from the operation of the sawmill:

Noise Nuisance

The source of noise will be from the operation of the equipment, generators and machinery and may disturb the residents living nearby. The generators will be housed in a generator room and equipped with exhaust stacks and the equipment and machinery will be worked during working hours and serviced according to manufacturer's specifications.

Fire

The source of the fire may be as results of defective electrical equipment such as loose wiring, overload sockets, etc. or arson or the carelessness of workers who may smoke onsite.

Vibration

Vibrations generated from the use of the equipment and heavy duty machinery.

Particulate Matter (dust)

It is expected that dust will be emitted from the equipment such as the planers, edger, and mills.

Flooding

The soil type of the area is clay so water will drain slowly and coupled with the increase levels of intense rainfall and high tide as well as the drains blocked with solid waste and vegetation may results in flooding. The topography of the area is flat.

Mitigation Measures

Noise Nuisance

The equipment purchased is the new models so the noise levels generated will not be significant as compared to the old models. The generators will be housed in a generator room and equipped with exhaust stacks. The equipment and machinery will be worked during working hours. These will be serviced and maintained according to manufacturer's specifications. Blades will be checked and replaced with sharp ones. Workers will be provided with appropriate PPE including hearing protection.

Fire

Fire extinguishers and sand buckets will be placed at strategic points within the sawmill so in case there is a fire emergency then the firefighting equipment can be used. Staffers will be trained in the use of the fire extinguishers. The electrical circuits and points will be checked regularly.

Vibration

The equipment will be placed on concrete foundation to dampen the vibrations and the skidder and loader will be working only when the need arises that is to 'feed' the mills with logs. The equipment and machinery will be worked during working hours and serviced according to manufacturer's specifications.

Particulate Matter (dust)

The planers will be equipped with extractor systems to channel the dust into the dust containment bin. Sawdust generated by the mills and edger will be removed from the mill floor by a worker. The residents are living upwind of the proposed sawmill location (refer to figure 1 above) and the employees will be given appropriate PPE to protect themselves from dust. The mill floor will be wet from time to time to keep down the dust particles.

Flooding

The drains will be cleaned and maintained at least once per month to prevent flooding. Also, the drains will be de-silted from time to time. The land will be built-up with the wood waste.

Waste Generation

Sold Waste Management

Domestic waste such as food boxes, beverage containers, etc. will be collected in a covered garbage receptacle and will be emptied once weekly by the Puran Brothers Waste Disposal Services.

Wood waste such as ends, strips and slabs will be used for revetment and shaving and sawdust will be collected by person in the area. Extractor systems will be installed on the planers and connected to the dust containment bin. The bin's dimensions will be based on the quantity of shaving and sawdust generated from the planers.

Effluent

Grey and sewage water produced by workers and customers; as such, the effluent will be discharged into the septic tank to be treated anaerobically. The septic tank will be accessible for cleaning and will be emptied when fill by Puran Waste Disposal Service.

Hazardous Waste

Waste oil of approximately 5-8 gallons will be generated from the servicing of the loader, chainsaw (s), skidder and generators. The waste oil will stored in tightly covered 5 gallon plastic pails to avoid spillage and they will be kept in the mechanic workshop. The waste oil will be reused on the chainsaw.

Prepared by: Ragnath Persaud
Ragnath Persaud (Owner)

Date: February 15, 2023